COVID-19 vaccines: Get the facts ☑

Vaccines to prevent the coronavirus disease 2019 (COVID-19) are perhaps the best hope for ending the pandemic. But as the U.S. Food and Drug Administration (FDA) begins authorizing emergency use of COVID-19 vaccines, you likely have questions. Find out about the benefits of the COVID-19 vaccines, how they work, the possible side effects and the importance of continuing to take infection prevention steps.

What are the benefits of getting a COVID-19 vaccine?

COVID-19 can cause severe medical complications and lead to death in some people. There is no way to know how COVID-19 will affect you. If you get COVID-19, you could spread the disease to family, friends and others around you.

Getting a COVID-19 vaccine can help protect you by creating an antibody response in your body without your having to become sick with COVID-19.

A COVID-19 vaccine might prevent you from getting COVID-19. Or, if you get COVID-19, the vaccine might keep you from becoming seriously ill or from developing serious complications.

Getting vaccinated also might help protect people around you from COVID-19, particularly people at increased risk of severe illness from COVID-19.

What COVID-19 vaccines have been approved and how do they work?

Currently, several COVID-19 vaccines are in clinical trials. The FDA will review the results of these trials before approving COVID-19 vaccines for use. But because there is an urgent need for COVID-19 vaccines and the FDA's vaccine approval process can take months to years, the FDA will first be giving emergency use authorization to COVID-19 vaccines based on less data than is normally required. The data must show that the vaccines are safe and effective before the FDA can give emergency use authorization.

Pfizer/BioNTech vaccine

The FDA has given emergency use authorization to the Pfizer/BioNTech COVID-19 vaccine. Data has shown that the vaccine starts working soon after the first dose and has an efficacy rate of 95% seven days after the second dose. This means that about 95% of people who get the vaccine are protected from becoming seriously ill with the virus. This vaccine is for people age 16 and older. It requires two injections given 21 days apart.

Moderna vaccine

The FDA has given emergency use authorization to the Moderna COVID-19 vaccine. Data has shown that the vaccine has an efficacy rate of 94.1%. This vaccine is for people age 18 and older. This vaccine requires two injections given 28 days apart.

Both the Pfizer/BioNTech and the Moderna COVID-19 vaccines use messenger RNA (mRNA). Coronaviruses have a spike-like structure on their surface called an S protein. COVID-19 mRNA vaccines give cells instructions for how to make a harmless piece of an S protein. After vaccination, cells begin making the protein pieces and displaying them on cell surfaces. Your immune system will recognize that the protein doesn't belong there and begin building an immune response and making antibodies.

The Janssen/Johnson & Johnson COVID-19 vaccine is a vector vaccine. In this type of vaccine, genetic material from the COVID-19 virus is inserted into a different kind of weakened live virus, such as an adenovirus. When the weakened virus (viral vector) gets into your cells, it delivers genetic material from the COVID-19 virus that gives your cells instructions to make copies of the S protein. Once your cells display the S proteins on their surfaces, your immune system responds by creating antibodies and defensive white blood cells. If you become infected with the COVID-19 virus, the antibodies will fight the virus. Viral vector vaccines can't cause you to become infected with the COVID-19 virus or the viral vector virus. Also, the genetic material that's delivered doesn't become part of your DNA.

Can a COVID-19 vaccine give you COVID-19?

No. The COVID-19 vaccines currently being developed in the U.S. don't use the live virus that causes COVID-19.

Keep in mind that it will take a few weeks for your body to build immunity after getting a COVID-19 vaccination. As a result, it's possible that you could become infected with the virus that causes COVID-19 just before or after being vaccinated.

What are the possible side effects of a COVID-19 vaccine?

A COVID-19 vaccine can cause mild side effects after the first or second dose, including:

- Pain, redness or swelling where the shot was given
- Fever
- Fatigue
- Headache
- Muscle pain
- Chills
- Joint pain

You'll likely be monitored for 15 minutes after getting a COVID-19 vaccine to see if you have an immediate reaction. Most side effects happen within the first three days after vaccination and typically last only one to two days.

The COVID-19 vaccine may cause side effects similar to signs and symptoms of COVID-19. If you've been exposed to COVID-19 and you develop symptoms more than three days after getting vaccinated or the symptoms last more than two days, self-isolate and get tested.

Can I get a COVID-19 vaccine if I have a history of allergic reactions?

If you have a history of severe allergic reactions not related to vaccines or injectable medications, you may still get a COVID-19 vaccine. You should be monitored for 30 minutes after getting the vaccine.

If you've had an immediate allergic reaction to other vaccines or injectable medications, ask your doctor if you should get a COVID-19 vaccine. If you've ever had an immediate or severe allergic reaction to any ingredient in a COVID-19 vaccine, the CDC recommends not getting that specific vaccine.

If you have an immediate allergic reaction after getting the first dose of a COVID-19 vaccine, don't get the second dose.

Is there anyone who should not get a COVID-19 vaccine?

If you've ever had an immediate or severe allergic reaction to any ingredient in a COVID-19 vaccine, the CDC recommends not getting that specific vaccine.

Should I get the COVID-19 vaccine even if I've already had COVID-19?

Getting COVID-19 might offer some natural protection or immunity from reinfection with the virus that causes COVID-19. But it's not clear how long this protection lasts. Because reinfection is possible and COVID-19 can cause severe medical complications, it's recommended that people who have already had COVID-19 get a COVID-19 vaccine. If you've had COVID-19, wait until 90 days after your diagnosis to get a COVID-19 vaccine.

If you have a chronic medical condition and may have a higher risk of serious illness, check with your doctor about other ways to protect yourself.

Source: The Mayo Clinic
https://www.mayoclinic.org/diseases-conditions/coronavirus/in-depth/coronavirus-vaccine/art-20484859